

TS-2000/TS-2000X/TS-B2000 doesn't have function of receiving 800MHz-band. Therefore, it cannot receive Cellular band. The CPU is programmed not to synchronize frequency band of 800MHz includes 824-849MHz and 869-894MHz.

For example, in case that it increases the frequency from 430MHz at 5kHz step, it normally becomes up to 511.995MHz and jump up to 1240MHz.

CPU of this receiver cannot read program nor make or write program without special developed unit. Therefore, user cannot tamper with CPU.

As for Image receiving, this receiver doesn't have the circuit devices they can receive nor the construction of frequency which drops into 800MHz band.

Because of above-mentioned reason, this device is compliance to Section 15.121.

FCC RULES REGARDING CELLULAR:

§2.1033 Application for certification.

(b) Applications for equipment operating under Parts 11, 15 and 18 of the rules shall be accompanied by a technical report containing the following information:

(11) Applications for the certification of scanning receivers shall include a statement describing the methods used to comply with the design requirements of all parts of §15.121 of this chapter. The application must specifically include a statement assessing the vulnerability of the equipment to possible modification and describing the design features that prevent the modification of the equipment by the user to receive transmissions from the Cellular Radiotelephone Service. The application must also demonstrate compliance with the signal rejection requirement of §15.121 of this chapter, including details on the measurement procedures used to demonstrate compliance.

§15.121 Scanning receivers and frequency converters used with scanning receivers.

(a) Except as provided in paragraph (c) of this section, scanning receivers and frequency converters designed or marketed for use with scanning receivers, shall:

(1) Be incapable of operating (tuning), or readily being altered by the user to operate, within the frequency bands allocated to the Cellular Radiotelephone Service in Part 22 of this chapter (cellular telephone bands). Scanning receivers capable of "readily being altered by the user" include, but are not limited to, those for which the ability to receive transmissions in the cellular telephone bands can be added by clipping the leads of, or installing, a simple component such as a diode, resistor or jumper wire; replacing a plug-in semiconductor chip; or programming a semiconductor chip using special access codes or an external device, such as a personal computer. Scanning receivers, and frequency converters designed for use with scanning receivers, also shall be incapable of converting digital cellular communication transmissions to analog voice audio.

(2) Be designed so that the tuning, control and filtering circuitry is inaccessible. The design must be such that any attempts to modify the equipment to receive transmissions from the Cellular Radiotelephone Service likely will render the receiver inoperable.

(b) Except as provided in paragraph (c) of this section, scanning receivers shall reject any signals from the Cellular Radiotelephone Service frequency bands that are 38 dB or higher based upon a 12 dB SINAD measurement, which is considered the threshold where a signal can be clearly discerned from any interference that may be present.

(c) Scanning receivers and frequency converters designed or marketed for use with scanning receivers, are not subject to the requirements of paragraphs (a) and (b) of this section provided that they are manufactured exclusively for, and marketed exclusively to, entities described in 18 USC 2512(2), or are marketed exclusively as test equipment pursuant to §15.3(dd).

(d) Modification of a scanning receiver to receive transmissions from Cellular Radiotelephone Service frequency bands will be considered to constitute manufacture of such equipment. This includes any individual, individuals, entity or organization that modifies one or more scanners. Any modification to a scanning receiver to receive transmissions from the Cellular Radiotelephone Service frequency bands voids the certification of the scanning receiver, regardless of the date of manufacture of the original unit. In addition, the provisions of §15.23 shall not be interpreted as permitting modification of a scanning receiver to receive Cellular Radiotelephone Service transmissions.

(e) Scanning receivers and frequency converters designed for use with scanning receivers shall not be assembled from kits or marketed in kit form unless they comply with the requirements in paragraph (a) through (c) of this section.

(f)(1) Scanning receivers shall have a label permanently affixed to the product, and this label shall be readily visible to the purchaser at the time of purchase. The label shall read as follows:
WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

(2) "Permanently affixed" means that the label is etched, engraved, stamped, silkscreened, indelibly printed or otherwise permanently marked on a permanently attached part of the equipment or on a nameplate of metal plastic or other material fastened to the equipment by welding, riveting, or permanent adhesive. The label shall be designed to last the expected lifetime of the equipment in the environment in which the equipment may be operated and must not be readily detachable. The label shall not be a stick-on, paper label.

REQUIRED STATEMENTS:

§15.121 Scanning receivers and frequency converters used with scanning receivers.

This device is incapable of operating (tuning), or readily being altered by the user to operate, within the frequency bands allocated to the Cellular Radiotelephone Service in Part 22 (cellular telephone bands). This scanning receiver is incapable of "readily being altered by the user" including, but not limited to, the ability to receive transmissions in the cellular telephone bands, which cannot be added by clipping the leads of, or installing, a simple component such as a diode, resistor or jumper wire; replacing a plug-in semiconductor chip; or programming a semiconductor chip using special access codes or an external device, such as a personal computer.

Furthermore, this scanning receiver is incapable of converting digital cellular communication transmissions to analog voice audio.

By design, the tuning, control and filtering circuitry is inaccessible, for these reasons:

1. The PLL Control CPU can not select or adjust between 824.0000MHz to 848.9999MHz, and 869.0000MHz to 893.9999MHz.
2. The CPU employed has internal flash memory, however the programming information cannot be read out from the CPU, therefore it has same means of protection as a masked CPU.
3. The IF frequency structure has been selected to avoid receiving cellular frequencies caused by the IF image frequency.

The design is such that any attempts to modify the equipment to receive transmissions from the Cellular Radiotelephone Service likely will render this receiver inoperable.

This scanning receiver will reject any signals from the Cellular Radiotelephone Service frequency bands that are 38 dB or higher based upon a 12 dB SINAD measurement, which is considered the threshold where a signal can be clearly discerned from any interference that may be present.

This scanning receiver has a label permanently affixed to the product, and this label is readily visible to the purchaser at the time of purchase. The label reads as follows:

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

REQUIRED PERMENANT LABEL ON THE EQUIPMENT:

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

CellRules.doc 09/29/00 Joel Berger